

WHAT IS CLAIMED IS:

1. A liquid crystal display device comprising; a liquid crystal panel including a transparent plate formed with a group of segment electrodes and dummy segment electrodes outside the segment electrode group, a counter plate formed with a group of common electrodes and dummy common electrodes outside the common electrode group, and a liquid crystal layer disposed at a gap between the transparent plate and the counter plate,

wherein the dummy segment electrodes are applied with a segment signal waveform exceeding a selection voltage of any common signal for liquid crystal selection while the dummy common electrodes are applied with a common signal waveform exceeding a selection voltage of any segment signal for liquid crystal selection, whereby a frame is displayed outside a display screen.

2. A liquid crystal display device according to claim 1, wherein the dummy common electrodes are applied with a waveform which is synthesized with a driving waveform applied to the segment electrode group to provide a synthesized waveform having an effective value greater than an effective value of a waveform applied to an ON-state liquid crystal in the display screen.

3. A liquid crystal display device according to claim 1, further comprising a driver IC for driving the liquid crystal panel,

wherein the waveform applied to the dummy segment electrodes and the waveform applied to the dummy common electrodes are generated based on an input signal to the driver IC.

4. A liquid crystal display device according to claim 3, wherein the waveform applied to the dummy common electrodes is asynchronous to an FLM signal, has an equal H-L time in one period and does not coincide with an M signal.
5. A liquid crystal display device according to claim 4, wherein the waveform applied to the dummy common electrodes is a signal waveform obtained by dividing down the M signal for level shift to the same potential as that of a segment voltage.
6. A liquid crystal display device according to claim 5, wherein the waveform applied to the dummy common electrodes is a signal waveform obtained by dividing down the M signal to 1/2.
7. A liquid crystal display device according to claim 1, wherein the waveform applied to the dummy segment electrodes has the same period as the M signal and the same potential as the waveform applied to the dummy common electrodes.
8. A liquid crystal display device comprising; a liquid crystal panel including a transparent plate formed with a group of segment electrodes, a transparent counter plate formed with a group of common electrodes, and a liquid crystal layer interposed between the transparent plate and the transparent counter plate; and a driver IC for driving the liquid crystal panel,

wherein a driving signal from the driver IC is inputted to a segment electrode and a common electrode constituting a pixel to be driven for image display, whereas a waveform generated based on an input signal to the driver IC is inputted to a common electrode

to be placed in a normally ON state.

9. A liquid crystal display device comprising; a liquid crystal panel including a transparent plate formed with a group of segment electrodes, a transparent counterplate formed with a group of common electrodes, and a liquid crystal layer interposed between the transparent plate and the transparent counter plate; and a driver IC for driving the liquid crystal panel,

wherein a driving signal from the driver IC is inputted to a segment electrode and a common electrode constituting a pixel to be driven for image display, whereas a common electrode to be placed in a normally ON state is applied with a waveform which is asynchronous to an FLM signal, has an equal H·L time in one period and does not coincide with an M signal.